No. 712,797. Patented Nov. 4, 1902.

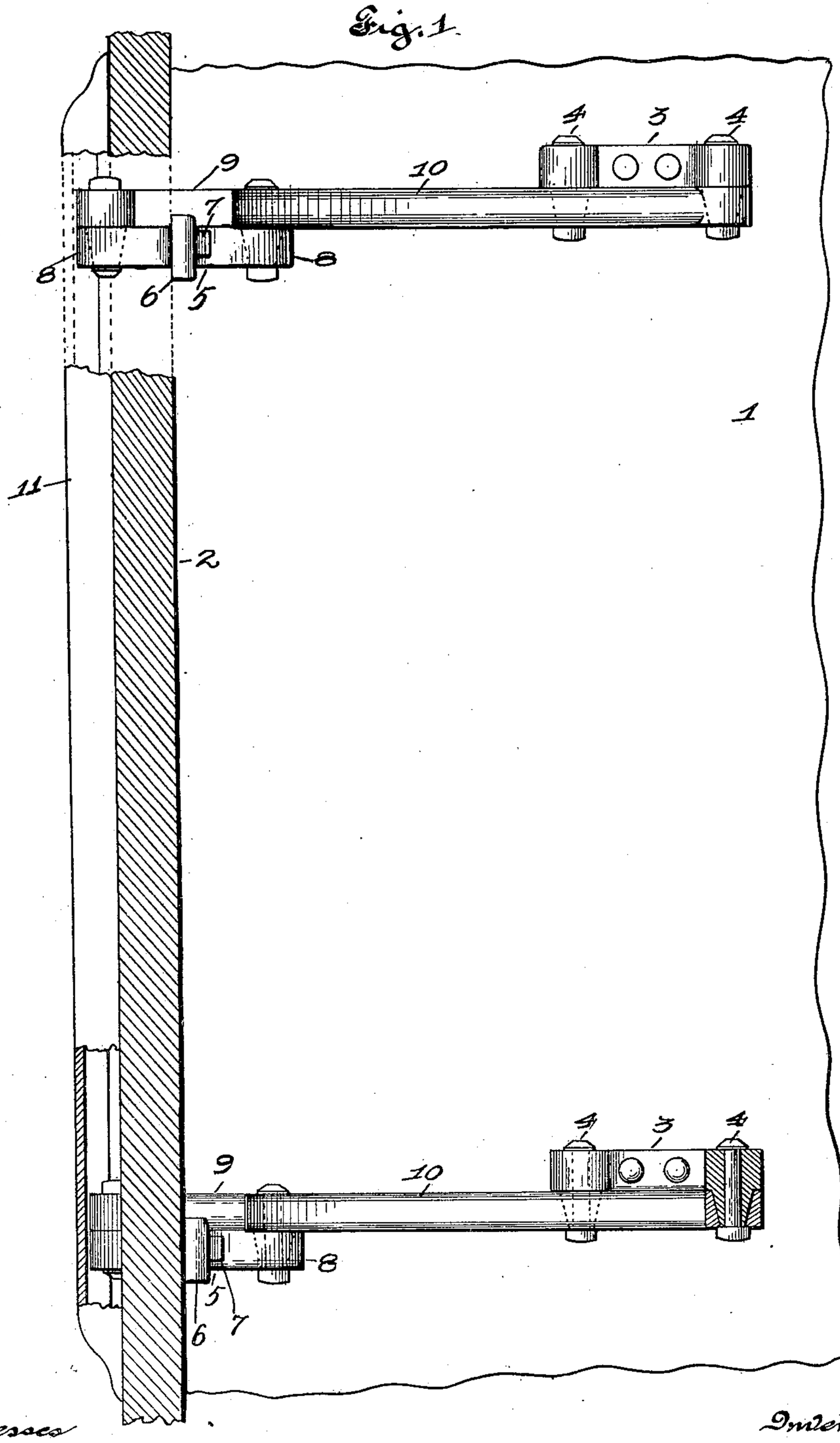
G. H. HOLTZMANN.

HINGE.

(Application filed July 17, 1902.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



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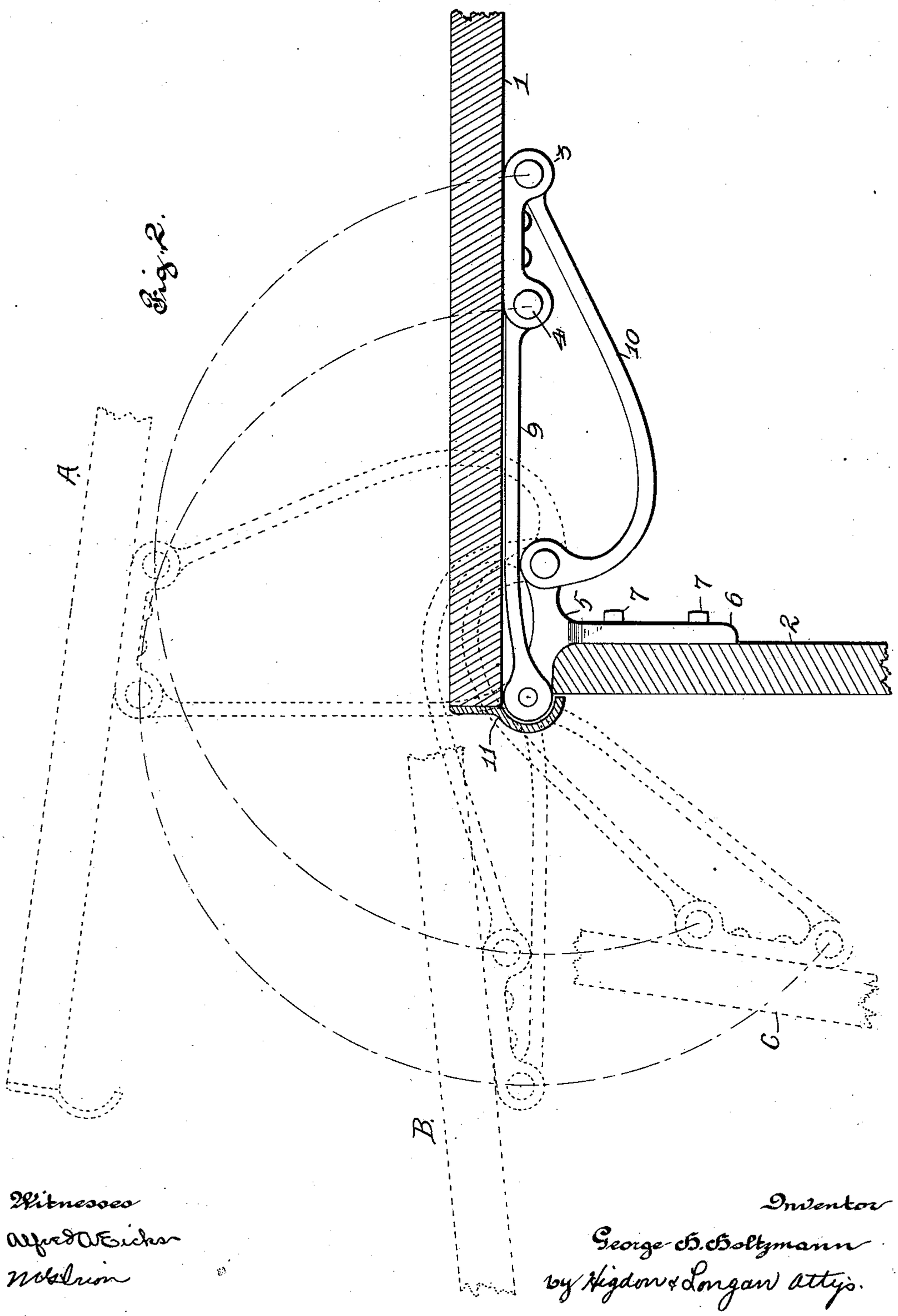

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UNITED STATES PATENT OFFICE.

GEORGE H. HOLTZMANN, OF ST. LOUIS, MISSOURI.

HINGE.

SPECIFICATION forming part of Letters Patent No. 712,797, dated November 4, 1902.

Application filed July 17, 1902. Serial No. 115,893. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. HOLTZMANN, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Hinges, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to door-hinges; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

The object of my invention is to provide an improved hinge which shall be especially adapted to vehicle-doors and especially to those of the class known as "transformable" vehicles. In transformable vehicles it is, as is well known, necessary to provide a hinge which will permit the doors to open in the limited space between the vehicle-body and the wheels or shafts. However, my improved hinge is also applicable to doors of buildings and various other sorts of doors where the situation necessitates their being opened in a limited space.

A further object of my invention is to improve upon the construction shown and described in my United States Letters Patent numbered 583,998 and 624,937 and dated, respectively, June 8, 1897, and May 16, 1899.

In the drawings, Figure 1 is a sectional side elevation of a set of my improved hinges applied to a door which is normally located at a right angle to its jamb, as in a transformable vehicle. Fig. 2 is a sectional plan view.

1 indicates a common door, and 2 the jamb or stationary parts to which said door is hinged, and in the present case said door is normally located at a right angle to said stationary part.

3 indicates the hinge members, which are fixed to the door, and they are preferably in the form shown, with a vertical bolt-hole at each end, through which bolts 4 are passed.

At this point it may be well to explain that my improved hinge is constructed and operates upon the principle of the "parallel-ruler."

5 indicates the members, which are fixed to the door-jamb or stationary part 2. As shown, said member 5 consists of a T-shaped metal casting, the stem 6 of which is adapted to be secured to the door-post by screws or bolts 7, while the extremities 8 of the head are bored to form knuckles or seats for the pivot-bolts 4, and the outer arm of the head is adapted to extend over or through the door-post, so that the knuckle formed therein projects beyond the same, and they are caused to retain said position by the connecting-rods 9 and 10, which have perforated ends and are secured to said members, as shown, by means of the bolts 4. The connecting-rod 10 is curved closely adjacent its inner end for the purpose hereinafter disclosed.

11 indicates a guard for the hinge-joints, which would otherwise show upon the exterior of the work. The guard is preferably made of metal and curved to fit the hinge-joints in a neat manner and is attached or fixed at one edge to the adjacent edge of the door 1 and which may be done by means of any suitable well-known fastening, such as nails or screws.

I preferably make use of but two hinges to a door, placed one directly above the other, as shown, although it is perfectly obvious that I may use a larger number, it only being essential that all of them be placed in vertical alinement.

The operation is as follows: The normal position of the door is at right angle to the part 2, and when it is desired to open the door the same is moved bodily toward the left and swings to the position indicated by the dotted lines A in Fig. 2. If such position is not sufficient, it may readily be swung farther to the left until it occupies the position, say, of that indicated by the dotted lines B, and if it is desired to swing the door still farther and completely out of the way of the door-opening it may be farther swung toward the left to the extreme position indicated by the dotted lines C. In the last-named position it will be observed that the door and its members 3 are not parallel with the members 5, and this is owing to the fact that the curved connecting-rods 10 have by reason of their

curves permitted the parts to move beyond a parallel position when the door is at the extreme limit of its outward movement.

I claim—

A hinge comprising two parallel connecting-rods located in the same horizontal plane, means whereby the adjacent ends of said rods may be pivotally connected to a door, and a fixed member in the form of a T-shaped metal casting to which the opposite ends of said rods are pivotally connected, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. HOLTZMANN.

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